# MONSON'S 2015 WATER QUALITY REPORT

*Town of Monson, Water & Sewer Department P.O. Box 388, 198WD Main St., Monson, MA 01057-0388*
*Tel:(413) 267-4130; Fax:(413) 267-4106; Office Hours: Mon.- Fri. 7:00 am - 3:30 pm, E-mail: monsonws@monson-ma.gov*

**Commissioners:** Paul C. DeMaio – Chairman, Marshall L. Harris – Vice Chairman, Joseph M. Prior – Clerk
**Staff:** Craig W. Jalbert – Superintendent, Thomas J. Murphy - Assistant Superintendent,
Ryan C. Kiernan & Matthew J. Doyle - W&S Maintenance Workers, Dale S. Barnes-Johnson – Administrative Assistant

*We are dedicated to providing a safe, dependable and affordable supply of drinking water to our customers.*

This report includes 2015 water quality testing results, information on improvements we have made to our water system, and tips to protect our wells and use water wisely. The Massachusetts Department of Environmental Protection (MassDEP) and Environmental Protection Agency (EPA) prescribe regulations that limit the amount of certain contaminants in water which we monitor and test accordingly, ensuring that you receive the safest and highest quality drinking water possible.

During calendar year 2015, the Monson Water Dept. was awarded a $25,200 Water Infrastructure Planning and Technical Assistance Grant from the MassDEP to fund an evaluation of Monson's water infrastructure and assist in determining and prioritizing needed improvements to ensure continued dependable operation and management of the system.

The Bethany Road Well underwent a routine cleaning and overhaul. We completed a flow pacing update to our chlorine pump systems at all our pump stations that links the chlorine flow with the output of the well pumps. The update adds another layer of safety by preventing the possibility of over dosing the chlorine and allows the metering pump to be more precise. Ely Rd. water storage tank #1 was brush and power washed to remove the exterior mold buildup which over time will degrade the paint coating. We replaced 900 feet of old 1" plastic pipe with 2" 200 psi HDPE tubing on Stafford Rd. that begins at the last hydrant there and continues to house #43 and #58. Ground was finally broken for the new Parks and Recreation Department building where we assisted with the installation of new water and sewer services. We repaired 9 water service leaks and 1 water main break, updated / replaced 7 water services from the main to the curb stop, assisted in the replacement of 5 services from the curb stop to the house, replaced 2 hydrants and added 6 new connections to the water system. A 120 year old valve at the corner of Main and Bliss was repacked and 4 street valve boxes were replaced throughout the system. Water service freeze ups were common during the winter of 2015 and our staff was called in to assist 4 of our customers and their contractors with the necessary thawing efforts. The Boy Scouts, led by Eagle Scout hopeful Cameron Dill who organized and managed the project from beginning to end, painted a total of 52 fire hydrants during the fall season. Congratulations and thank you to Cameron and his Boy Scout painting crew for an outstanding job.

The Board meets on alternate Wednesdays at 3:30 p.m. at the Monson Water Dept.; meetings are posted at the town offices and on our web page. The public is always invited to attend or contact us with any concerns you may have with your water quality. Your support is appreciated as the Commission and staff strive to improve and upgrade the water system to ensure you receive the highest quality drinking water and best service possible 24 hours a day, 365 days per year. For more information about your water system, please visit Our Page on the Town's Web-Site at www.monson-ma.gov

**Sources of Drinking Water** ~ Sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include: **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; **Inorganic contaminants**, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining and farming; **Pesticides and herbicides**, may come from a variety of sources such as agriculture, urban storm water runoff and residential uses; **Organic chemical contaminants**, include synthetic and volatile organic chemicals which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems; **Radioactive contaminants** which can be naturally-occurring or be a result of oil and gas production, and mining activities.

| Monson's Water Sources | DEP Source ID # | Source Type | Location |
|---|---|---|---|
| Bethany Rd Well | 1191000-03G | Groundwater | East side of Chicopee Brook off of Bethany Rd |
| Palmer Rd Well | 1191000-04G | Groundwater | West side of Chicopee Brook off of Rt. 32 |
| Bunyan Rd Replacement Wells | 1191000-06G & 07G | Groundwater | West side of Chicopee Brook off of Bunyan Rd |

**Total Pumping for 2015** = 137,257,000 gal. Average rate of 376,047 gal./day. Our peak day was 967,000 gal. on 05/11/2015

**Monson Source Protection ~** MassDEP completed a Source Water Assessment and Protection (SWAP) Report in 2002 which assesses the susceptibility of the water sources supplying Monson. The SWAP report is available at our office or online at www.state.ma.us/dep. Based on the information collected during the assessment our system received a susceptibility ranking of high. One of the major recommendations of the report was the completion and adoption of a Source Water Protection Plan (SWPP) which was done in 2004 and available at our office or online on our web page. This plan will assist us in minimizing risks to our water sources and provide guidelines for future growth and development. Remember to protect your drinking water through proper auto care and waste disposal and remember to dispose of hazardous household chemicals at hazardous materials collection days. If you choose to fertilize think about using organic types. Please follow the directions on the package and use only what is necessary.

**How Is Monson's Water Treated? ~** Many drinking water sources in New England are naturally corrosive (i.e. they have a pH of less than 7.0). So, the water they supply has a tendency to corrode and dissolve the metal piping it flows through. This not only damages pipes but can also add harmful metals, such as lead and copper, to the water. For this reason it is beneficial to add chemicals that make the water neutral or slightly alkaline (basic). The Monson Water Department adds Sodium Carbonate (Soda Ash) to adjust the water to a non-corrosive pH. Testing throughout the water system has shown that this treatment has been effective at reducing lead and copper concentrations. Calcium hypochlorite, also known as chlorine is being added for disinfection as a preventive measure to ensure our water is clean and bacteria free.

**Cross Connection Program ~** A cross connection is a connection between a drinking water pipe and a polluted source. The pollution can come from your own home. For instance, you're going to spray fertilizer on your lawn. You hook up your hose to the sprayer that contains the fertilizer. If the water pressure drops (say because of fire hydrant use in the town) when the hose is connected to the fertilizer, the fertilizer may be sucked back into the drinking water pipes through the hose. Using an attachment on your hose called a backflow-prevention device can prevent this problem. The Monson Water Department recommends the installation of backflow prevention devices, such as a low cost hose bib vacuum breaker, for all inside and outside hose connections. You can purchase this device at a hardware store or plumbing supply store. This is a great way for you to help protect the water in your home as well as the drinking water system in your town! For additional information on cross connections and on the status of your water system's cross connection program, please contact us or visit the cross connection control page on our web site.

**Water Main Flushing ~** To ensure our water quality is at its best our flushing program will resume during the fall of 2016. Prior to flushing, notices will be published in the Hometown Section of the Springfield Republican paper and broadcast on MPACT. Updates will appear on our web page providing the expected daily flushing area. We apologize for any inconvenience this may cause. The discolored water may not be aesthetically pleasing, but it will be temporary and it is not harmful, however we do advise you take precautions regarding your laundry routine.

# MONSON (PWS ID# 1191000) 2015
## Water Quality Testing Results

The MassDEP has reduced the monitoring requirements for the following contaminant groups because that particular source has been determined not to be at risk of contamination. The date the last sample was collected for the specific group is listed in the table below and was found to meet all applicable EPA and MassDEP standards.

| 2015 Water Quality Monitoring Waiver Status | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Source | VOC | Sampled | SOC | Sampled | IOC | Sampled | Perchlorate | Sampled |
| Bethany Rd Well | No | 11/03/2015 | Yes | 3/8/2012 | Yes | 07/18/2011 | Yes | 07/18/2011 |
| Palmer Rd Well | No | 11/03/2015 | Yes | 3/8/2012 | Yes | 07/18/2011 | Yes | 07/18/2011 |
| Bunyan Rd Replacement Wells #1 & #2 | Yes | 11/03/2015 | Yes | 3/8/2012 | Yes | 07/18/2011 | Yes | 07/18/2011 |

**VOC** = volatile organic contaminants; **SOC** = synthetic organic contaminants; **IOC** = Inorganic contaminants.

The water quality test results presented in the table below are from the most recent round of testing done in accordance with the regulations. All data shown was collected during the last calendar year unless otherwise noted in the table. We are committed to providing you with the best water quality available. We are proud to report that last year your drinking water met all applicable health standards regulated by the state and federal government. Visit our web page for additional testing information. Please note a list of terms, abbreviations and definitions-used has been included below the table.

| Contaminant | Level Detected | HDL | MCL | MCLG | Date | Violation | Possible Sources |
|---|---|---|---|---|---|---|---|
| Barium | 0.028-0.05 ppm | 0.05 ppm | 2 ppm | 2 ppm | 7/18/2011 | No | Discharge from drilling wastes & metal refineries, erosion of natural deposits |
| Nitrate | 0.75 – 1.7 ppm | 1.7 ppm | 10 ppm | 10 ppm | 7/07/2015 | No | Runoff from fertilizer use, leaching from septic tanks, erosion of natural deposits |
| Perchlorate | 0.076 – 0.145 ppb | 0.145 ppb | 2.0 ppb | N/A | 7/18/2011 | No | Rocket propellants, fireworks, flares, blasting agents |
| Sodium | 35.0 – 70.0 ppm | 70.0 ppm | none | none | 7/01/2014 | No | Erosion of natural deposits |
| Gross Alpha Activity | 0.36 - 0.80 pCi/L | 0.80 pCi/L | 15 pCi/L | 0 pCi/L | 7/07/2015 | No | Erosion of natural deposits |
| Combined Radium | 0.06 - 0.49 pCi/L | 0.49 pCi/L | 5 pCi/L | 0 pCi/L | 7/07/2015 | No | Erosion of natural deposits |

| Contaminant | Level Detected | Action Level | 90th Percentile | Sites Sampled | Sites Above Action Level | Violation | Sample Date | Possible Sources |
|---|---|---|---|---|---|---|---|---|
| Copper | 0.027–0.480 ppm | 1.3 ppm | 0.021 ppm | 20 | 0 | No | 8/27- 8/28/2014 | Household plumbing |
| Lead | ND – 8.2 ppb | 15 ppb | 4.5 ppb | 20 | 0 | No | 8/27- 8/28/2014 | Household plumbing |

**Action Level (AL) =** The concentration of contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow; **HDL** = Highest detected level; **Maximum Contaminant Level Goal (MCLG) =** The level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety; **Maximum Contaminant Level (MCL) =** The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology; **n/a =** not applicable; **nd =** not detectable at testing limit; **ppb =** parts per billion (1 drop in 10,000 gallons); **ppm =** parts per million (1 drop in 10 gallons); **pCi/L =** picocuries per liter; **mg/L =** milligrams per liter; **90th percentile =** Nine out of every ten homes sampled were at or below this level.

**Health Information** ~ In order to insure that tap water is safe to drink, The MassDEP and EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and the Mass Department of Public Health (DPH) regulations establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers. Contact EPA's **Safe Drinking Water Hotline at 800-426-4791** for more information about contaminants, potential health effects and EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants. If present, elevated levels of **lead** can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Monson Water Department is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

**Fluoride** is ***not*** added to the town's drinking water. Please discuss your children's fluoride needs with their pediatrician or dentist. Brush smart; always turn the water off while brushing your teeth. Wasted water is money down the drain.


**Water Saving Tips** ~ Small drips can waste up to 100 gallons of water a day. **Repair leaky** faucets, pipes, showerheads, plumbing fixtures and especially toilets to avoid high water bills and wasted water. You can't always see or hear a leaky toilet, but here is a simple test: Put a few drops of food coloring in your toilet tank, do not flush. If color appears in the bowl within 10-15 minutes, you have a leak. To repair it, the flush valve, flapper or valve seat may need cleaning or replacement. Parts are inexpensive and easy to install, or call your local plumber for assistance. **Change your habits;** Scrape dishes (but don't pre-rinse), soak pots and pans before washing. Only do full loads when washing dishes and when doing laundry use the proper setting size for the load you are washing. **Install water-saving devices,** such as high efficiency washers, low-flow sink faucets and shower heads, update your toilet to a modern unit which uses 1/3 the water an older toilet uses. **Outdoor tips,** check hoses and connectors-repair or replace any leaky parts or sections, only water when needed (grass does not move back when stepped on) and do so only during the cooler parts of the day, watering in the early morning or evening hours minimizes evaporation. Use mulch to retain water, use drought tolerant plants and add shade trees and shrubs to protect your lawn from the scorching sun. Visit our Frequently Asked Questions page on the Town's Web-Site at www.monson-ma.gov for more conservation tips.

In accordance with federal law and U.S. Department of Agriculture Policy, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, age or disability. (Not all prohibited basis apply to all programs). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whiten Building, 1400 Independence Avenue, SW, Washington, D.C., 20250-9410 or call (202)720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.